

California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2000-60
NPDES PERMIT NO. CA0005894
I.D. NO. 1B770050HUM

WASTE DISCHARGE REQUIREMENTS

FOR

LOUISIANA-PACIFIC SAMOA, INC.
SAMOA PULPMILL

Humboldt County

The California Regional Water Quality Control Board, North Coast Region (hereinafter, Regional Water Board), finds that:

1. Louisiana-Pacific Samoa, Inc., (hereinafter permittee) submitted a Report of Waste Discharge dated February 15, 1999 and applied for renewal of its Permit to discharge wastewater from its Samoa Pulpmill under the National Pollutant Discharge Elimination System (NPDES) and the State of California's Porter-Cologne Water Quality Control Act. The Pulpmill is located at 1 LP Drive on the north spit of Humboldt Bay adjacent to the community of Samoa. The term of this Permit is five years.
2. The Samoa pulpmill has the capacity to produce an average of 700 tons per day of bleached kraft market pulp. The mill discharges wastewater from an outfall that is approximately 8,200 feet (2,497 meters) long that includes an 852 foot (258 meter) multiport diffuser that provides an initial dilution rate of 115:1. The approximate depth of the diffuser is 82 feet (25 meters) at Latitude 40° 48' 28" North and Longitude 124°12'24" West. Effluent from the mill consists of:
 - a. process wastewater from the kraft pulping process including pulping, bleaching, drying, chemical recovery, and power generation;
 - b. wastewater from maintenance activities during pulp production, scheduled maintenance shutdowns and unscheduled shutdown periods. This includes, but is not limited to digester cleaning, tank cleaning, boiler washing, steam stripper maintenance, and the myriad of maintenance activities necessary to keep the mill operating;
 - c. solids from the raw water treatment plant (Outfall No. 101);
 - d. blowdown from the recovery boiler;

- e. storm water from the pulpmill site and adjacent sawmill;
- f. freshwater flow to maintain the outfall during periods of pulpmill shutdown;

Sanitary wastes from employee facilities (washrooms, restrooms) are discharged to a septic tank/leachfield system designed and constructed to conform to the Regional Water Board's on-site systems policy.

The Fairhaven Power Company discharges boiler blowdown through the outfall as provided in NPDES Permit No. CA0024571.

- 3. This facility is a major discharger as defined by the U.S. Environmental Protection Agency (U.S. EPA).
- 4. The Water Quality Control Plan for the North Coast Region (Basin Plan) includes water quality objectives, implementation plans for point source and non point source discharges, prohibitions and statewide plans and policies.

The "Water Quality Control Plan for Ocean Waters of California" establishes beneficial uses and water quality objectives for waters of the Pacific Ocean adjacent to the California Coast outside of enclosed bays, estuaries and coastal lagoons.

- 5. The beneficial uses of the Pacific Ocean include:
 - a. industrial water supply
 - b. water contact recreation
 - c. non contact water recreation
 - d. aesthetic enjoyment
 - e. navigation
 - f. commercial and sport fishing
 - g. mariculture
 - h. preservation and enhancement of areas of special biological significance
 - i. preservation and enhancement of rare and endangered species
 - j. marine habitat
 - k. fish migration
 - l. fish spawning
 - m. shellfish harvesting
- 6. The beneficial uses of shallow groundwater on the Samoa Peninsula include domestic water supply. The uncertainty of the supply and the susceptibility of this water to degradation from over pumping, percolation of sewage, salinity increases from dredged material disposal, and other activities has encouraged development by the Humboldt Bay Municipal Water District of a peninsula-wide public water system.

7. The Ocean Plan was adopted by the State Water Resources Control Board (State Water Board) and became effective on July 23, 1997. It declares that the beneficial uses of the ocean shall be protected, sets forth limits or levels of water quality characteristics to ensure protection of beneficial uses, and stipulates that discharges of waste shall not cause violation of the objectives within the waste field where initial dilution has been completed. The Ocean Plan sets forth effluent quality requirements in Table A and Table B. Table A limitations are not applicable to the permittee's process wastewater because effluent guidelines pursuant to the Clean Water Act (40CFR, Parts 63 and 430) have been established. Table B limitations are applicable to the entire discharge. Ocean Plan discharge prohibitions and general provisions are also applicable to the discharge.

The permittee requested an exception to the provisions of the Ocean Plan for the discharge from its raw water treatment plant. The Ocean Plan states that:

"Dischargers shall, as a 30-day average, remove 75 percent of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitations to be met shall not be lower than 60 mg/L." (Chapter IV, Table A)

The SWRCB by adoption of Resolution No. 87-103 approved the exception to the above limit for the discharge from the raw water treatment plant outfall (Outfall No. 101).

8. The discharge is presently governed by Waste Discharge Requirements Order No. 94-15 adopted by the Regional Water Board on June 23, 1994.
9. Effluent limitations in this order for substances identified in Table B of the Ocean Plan were calculated on the basis of a minimum probable initial dilution rate of 115:1.
10. Mass emission rate limitations in this order are based on the discharger's average production capacity of 700 tons per day of bleached market kraft pulp.
11. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 430 of the Clean Water Act and amendments thereto are applicable to the permittee.
12. All stormwater discharges from the facility are subject to the State Water Resources Control Board's General Industrial Stormwater Permit
13. The permitted discharge is consistent with the anti-degradation provision of 40 CFR 131.12 and all provisions of State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California. The impact on existing water quality will be insignificant.
14. In 1994, the discharger installed an outfall extension that discharges into deeper offshore waters. The discharger also changed the pulp mill production and treatment process to improve the quality of the discharge. The NPDES Permit for the Louisiana Pacific Somoa Pulp Mill (Order

No. 94-15 adopted on June 23, 1994) required a three-year study to verify that the new outfall and effluent quality protects the beneficial uses of receiving waters. The resulting study (*1997 Monitoring and Reporting Program for Louisiana Pacific Corporation, Samoa, California* dated February 1998) concludes that the pulp mill effluent quality and outfall design and location protect the beneficial uses of receiving waters and meet the terms of the receiving water standards contained in the existing NPDES Permit. Compliance with effluent limits contained in the new Permit provides reasonable assurance that receiving water standards are being met. Therefore, the monitoring program contained in this permit does not include routine receiving water monitoring. Receiving water monitoring must be conducted during the six-month period preceding submittal of a permit renewal application to verify that receiving water conditions have not changed.

15. This action to renew an NPDES Permit is exempt from Chapter 3 of the California Environmental Quality Act (CEQA), Public Resources Code Section 21100, et seq., in accordance with Section 13389 of the California Water Code, and is also exempt from CEQA as an existing facility pursuant to Title 14, California Code of regulations, Section 15301.
16. The Regional Water Board has notified the permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
17. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
18. This Order will serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, and amendments thereto, and will take effect upon adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 94-15 are rescinded and the permittee, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of waste to Humboldt Bay is prohibited.
2. The discharge of sanitary wastes to the Pacific Ocean is prohibited.
3. The discharge of any waste not specifically regulated by this Permit is prohibited.
4. The creation of a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code (CWC) is prohibited. [Health and Safety Code, Section 5411]
5. The discharge of process chemicals prior to their intended use in the mill processes is prohibited.

6. The discharge of white liquor, green liquor, or black liquor from leaks, spills, or releases resulting from improper operation or maintenance of facilities is prohibited.
7. The discharge of significant quantities of solids generated during tank cleaning, clarifier cleaning, and other maintenance activities is prohibited, except in conformance with Provision D.1.
8. The discharge of waste except as authorized in this order is prohibited.
9. The discharge of toxic pollutants in violation of effluent standards or prohibitions established under Section 307(a) of the Clean Water Act is prohibited.
10. The intentional introduction of pollutant-free wastewater to the collection, treatment, and disposal system for purposes of dilution is prohibited. (The discharge of non contact cooling water is not subject to this prohibition).
11. Odors, vectors, and other nuisances created beyond the limits of the pulpmill site due to improper operation of plant wastewater facilities are prohibited.
12. The discharge of waste to the shallow usable groundwaters of the Samoa Peninsula is prohibited. Notwithstanding this prohibition, the discharge of sanitary wastes from employee facilities in compliance with the North Coast Basin Plan On-Site Systems Policy is authorized.
13. The addition of chemicals at the raw water treatment plant unnecessary for the proper operation of the system is prohibited.
14. The use of chlorophenolic containing biocides at the facility is prohibited.

B. EFFLUENT LIMITATIONS

1. The permittee is authorized to discharge process wastewater, maintenance-related wastewater, solids from the raw water treatment plant, blowdown from the recovery boiler, and stormwater from the pulpmill site and the adjacent sawmill from outfall serial number 001 to the Pacific Ocean. The discharge to outfall number 001 in excess of the following limits is prohibited:

<u>Parameter</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Flow	mgd	20	25
BOD ₅ @ 20°C	lb/day ¹	11,270	21,630
Total Suspended Solids	lb/day ²	22,960	42,560

¹ Based on 40 CFR 430.22 and a production rate of 700 ADT/day

² Based on 40 CFR 430.22 and a production rate of 700 ADT/day

pH Within the limits of 5.0 to 9.0³

2. The discharger is authorized to discharge from the water treatment plant to outfall number 001 to the Pacific Ocean. The discharge of an effluent at an internal monitoring station designated outfall number 101, which shall be located so as to provide for sampling before the water treatment plant discharge effluent flows into outfall number 001, in excess of the following limits is prohibited:

<u>Parameter</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Total suspended solids:			
Wet Season (Oct. - Apr.)	lb/day	70,000	400,000
Dry Season (May - Sept.)	lb/day	14,000	400,000

3. Toxic Materials Limitations. The discharge of an effluent to the Pacific Ocean from outfall number 001 in excess of the following limits is prohibited:

OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

<u>Parameter</u>	<u>Units</u>	<u>6-Month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Arsenic	mg/l	0.58	3.4	8.9
	lb/day	97	567	1485
Cadmium	mg/l	0.12	0.46	1.2
	lb/day	20	77	200
Chromium (hexavalent) ⁴	mg/l	0.23	0.93	2.3
	lb/day	38	155	384
Copper	mg/l	0.12	1.2	3.2
	lb/day	20	200	534
Lead	mg/l	0.23	0.93	2.3
	lb/day	38	155	384
Mercury	ug/l	4.6	18.5	46.3
	lb/day	0.77	3.1	7.7
Nickel	mg/l	0.58	2.3	5.8
	lb/day	97	384	967
Selenium	mg/l	1.7	7.0	17.4
	lb/day	284	1167	2902

³Compliance shall be determined under 40 CFR 401.17 and 430.22

⁴The discharger may at its option monitor for total chromium. If the measured total chromium concentration exceeds the hexavalent chromium limitation, it will be assumed that the hexavalent chromium limitation was exceeded, unless the results of the hexavalent chromium analysis of a replicate sample indicate otherwise.

Silver	ug/l	63	306	794
	lb/day	10.5	51	132
Zinc	mg/l	1.4	8.4	22.3
	lb/day	234	1401	3720
<u>Parameter</u>	<u>Units</u>	<u>6-Month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Endosulfan	ug/l	1.0	2.1	3.1
	lb/day	0.17	0.35	0.52
Endrin	ug/l	0.23	0.46	0.70
	lb/day	.04	.08	0.12
Cyanide	mg/l	0.12	0.46	1.2
	lb/day	20	77	200
Chlorine ⁵	mg/l	0.23	0.93	7.0
	lb/day	38	155	1168
Ammonia	mg/l	70	278	696
	lb/day	11676	46370	116093
Phenolic Compounds	mg/l	3.5	13.9	35
(non-chlorinated)	lb/day	584	2318	5838
Phenolic Compounds	mg/l	0.12	0.46	1.2
(chlorinated)	lb/day	20	77	200
HCH	ug/l	0.46	0.93	1.4
	lb/day	0.8	0.16	0.23
Toxicity (chronic)	TUc	115		
Adsorbable Organic Halides				
AOX ⁶	ug/l	---	20	---

⁵Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined through the use of the following equation:

$$Ce = y(1 + Dm)$$

$$\log y = -0.43(\log x) + 1.8$$

Where: Ce = effluent concentration limit in mg/L
y = the water quality objective, in ug/L to apply when chlorine is being discharged
Dm = minimum probable initial dilution; and
x = the duration of uninterrupted chlorine discharge in minutes

Radioactivity Not to exceed limits specified in Title 17, Division 5, Chapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations

LIMITATIONS FOR PROTECTION OF HUMAN HEALTH - NON CARCINOGENS

<u>Chemicals</u>	<u>Units</u>	<u>30-day Average</u>
acrolein	mg/l	25.5
antimony	mg/l	139
bis(2-chloroethoxy) methane	mg/l	0.51
bis(2-chloroisopropyl) ether	mg/l	139
chlorobenzene	mg/l	66
chromium (III)	mg/l	22040
di-n-butyl phthalate	mg/l	406
dichlorobenzenes	mg/l	592
1,1-dichloroethylene	mg/l	824
diethyl phthalate	mg/l	3828
dimethyl phthalate	mg/l	95120
4,6-dinitro-2-methyphenol	mg/l	25.5
2,4-dinitrophenol	mg/l	0.5
ethylbenzene	mg/l	476
fluorathene	mg/l	1.7
hexachlorocyclopentadiene	mg/l	6.7
isophorone	mg/l	17400
nitrobenzene	mg/l	0.57
thallium	mg/l	1.62
toluene	mg/l	9860
1,1,2,2-tetrachloroethane	mg/l	139
tributyltin	mg/l	.00016
1,1,1-trichloroethane	mg/l	62640
1,1,2-trichloroethane	mg/l	4988

LIMITATIONS FOR PROTECTION OF HUMAN HEALTH - CARCINOGENS

<u>Parameter</u>	<u>Units</u>	<u>30-day Average</u>
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⁶ The AOX limit shall be determined by analyzing the water treatment plant effluent and the plant effluent. The AOX measured in the water treatment plant effluent shall be subtracted from the plant effluent to determine compliance with this limitation.

acrylonitrile	ug/l	11.6
aldrin	ng/l	2.6
benzene	ug/l	684
benzidine	ng/l	8.0
beryllium	ug/l	3.8
bis(2-chloroethyl) ether	ug/l	5.2
bis(2-ethylhexyl) phthalate	ug/l	406
carbon tetrachloride	ug/l	104
chlordane	ng/l	2.7
chloroform	mg/l	15.1

<u>Parameter</u>	<u>Units</u>	<u>30-day Average</u>
DDT	ng/l	19.7
1,4-dichlorobenzene	mg/l	2.1
3,3-dichlorobenzidine	ng/l	940
1,2-dichloroethane	mg/l	15.1
dichloromethane	mg/l	52
1,3-dichloropropane	ug/l	1032
dieldrin	ng/l	4.64
2,4-dinitrotoluene	ug/l	302
1,2-diphenylhydrazine	ug/l	18.6
halomethanes	mg/l	15.1
heptachlor	ng/l	83.5
hexachlorobenzene	ng/l	24.4
hexachlorobutadiene	ug/l	1624
hexachloroethane	ug/l	290
n-nitrosodimethylamine	ug/l	847
n-nitrosodiphenylamine	ug/l	290
PAHs	ng/l	1020
PCBs	ng/l	2.2
TCDD Equivalents	pg/l	0.45
tetrachloroethylene	mg/l	11.5
toxaphene	ng/l	24.4
trichloroethylene	mg/l	3.1
2,4,6-trichlorophenol	ug/l	33.6
vinyl chloride	mg/l	4.2

C. RECEIVING WATER LIMITATIONS

The discharge of waste shall not cause the following water quality objectives to be violated upon completion of initial dilution:

1. Bacterial Characteristics

a. Body-Contact Standards

Within a zone bounded by the shoreline and a distance of 1000 feet from the shoreline or the 30-foot depth contour, whichever is farther from the shoreline, and in areas outside this zone used for body-contact sports, as determined by the Regional Water Board, but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column:

- i. Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).
- ii. The fecal coliform density, based on a minimum of five samples for any 30-day period, shall not exceed a log mean of 200 per 100 ml, nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

b. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacteriological objectives shall be maintained throughout the water column:

In any 30-day period, the median total coliform concentration shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

2. Physical Characteristics

- a. Floating particulates and grease and oil shall not be visible.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- c. Natural Light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
- d. The rate of deposition of inert solids and the characteristics of inert solids in the ocean sediments shall not be changed such that benthic communities are degraded.

3. Chemical Characteristics

- a. The dissolved oxygen concentration shall not at any time be depressed more than ten percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste materials.
- b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
- c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- d. The concentration of substances set forth in Receiving Water Limitations C.-5 in marine sediments shall not be increased to levels which would degrade indigenous biota.
- e. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.
- f. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

4. Biological Characteristics

- a. Marine communities including vertebrate, invertebrate, and plant species shall not be degraded.
- b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Toxic Material Limitations (Table B from the Ocean Plan), Receiving Water. The discharge of waste shall not cause the following parameters to be present in the receiving water in excess of the following concentrations.

OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE

<u>Parameter</u>	<u>Units</u>	<u>6-month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Arsenic	ug/l	8	32	80
Cadmium	ug/l	1	4	10
Chromium (hexavalent) ⁷	g/l	2	8	20
Copper	g/l	3	12	30
Lead	g/l	2	8	20

⁷The discharger may at its option monitor for total chromium. If the measured total chromium concentration exceeds the hexavalent chromium limitation, it will be assumed that the hexavalent chromium limitation was exceeded, unless the results of the hexavalent chromium analysis of a replicate sample indicate otherwise.

Mercury	ug/l	0.04	0.16	0.4
Nickel	g/l	5	20	50
Selenium	ug/l	15	60	150
Silver	g/l	0.7	2.8	7
Zinc	g/l	20	80	200
Cyanide	ug/l	1	4	10
Chlorine ⁸	ug/l	2	8	60
Ammonia(N)	g/l	600	2,400	6,000

<u>Parameter</u>	<u>Units</u>	<u>6-month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Toxicity	TUc	----	1.0	----
Phenolic Comp. (nonchlorinated)	ug/l	30	120	300
Phenolic Comp. (chlorinated)	ug/l	1	4	10
Endosulfan	ng/l	9	18	27
Endrin	ng/l	2	4	6
HCH	ng/l	4	8	12

LIMITATIONS FOR PROTECTION OF HUMAN HEALTH - NON CARCINOGENS

<u>Parameter</u>	<u>Units</u>	<u>30-day Average</u>
acrolein	ug/l	220
antimony	mg/l	1.2
bis(2-chloroethoxy) methane	ug/l	4.4
bis(2-chloroisopropyl) ether	mg/l	1.2
chlorobenzene	ug/l	570
chromium	mg/l	190
di-n-butyl phthalate	mg/l	3.5
dichlorobenzenes	mg/l	5.1
1,1-dicloroethylene	mg/l	7.1
diethyl phthalate	mg/l	33
dimethyl phthalate	mg/l	820
4,6-dinitro-2-methyphenol	ug/l	220
2,4-dinitrophenol	ug/l	4.0

⁸Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined through the use of the following equation:

$$\text{Log } y = -0.43 (\log x) + 1.8$$

Where: y = the water quality objective (in ug/l) to apply when chlorine is being discharged:

x = the duration of uninterrupted chlorine discharged in minutes.

ethylbenzene	mg/l	4.1
flourathene	ug/l	15
hexechlorocyclopentadiene	ug/l	58
isophorone	mg/l	150
nitrobenzene	ug/l	4.9
thallium	ug/l	14
toluene	mg/l	85
1,1,2,2-tetrachloroethane	mg/l	1.2
tributyltin	ng/l	1.4
1,1,1-trichloroethane	mg/l	540
1,1,2-trichloroethane	mg/l	43

LIMITATIONS FOR PROTECTION OF HUMAN HEALTH - CARCINOGENS

<u>Parameter</u>	<u>Units</u>	<u>30-day Average</u>
acrylonitrile	ug/l	0.10
aldrin	ng/l	0.022
benzene	ug/l	5.9
benzidine	ng/l	0.069
beryllium	ng/l	33
bis(2-chloroethyl) ether	ug/l	0.045
bis(2-ethylhexyl) phthalate	ug/l	3.5
carbon tetrachloride	ug/l	0.90
chlordane	ng/l	0.023
chloroform	mg/l	0.13
DDT	ng/l	0.17
1,4-dichlorobenzene	ug/l	18
3,3-dichlorobenzidine	ng/l	8.1
1,2,-dichloroethane	mg/l	0.13
dichloromethane	mg/l	0.45
1,3-dichloropropene	ug/l	8.9
dieldrin	ng/l	0.040
2,4-dinitrotoluene	ug/l	2.6
1,2-diphenylhydrazine	ug/l	0.16
halomethanes	mg/l	0.13
heptachlor	ng/l	0.72
hexachlorobenzene	ng/l	0.21
hexachlorobutadiene	ug/l	14

hexachloroethane	ug/l	2.5
n-nitrosodimethylamine	ug/l	7.3
n-nitrosodiphenylamine	ug/l	2.5
PAHs	ng/l	8.8
PCBs	ng/l	0.019
TCDD Equivalents	pg/l	0.0039
tetrachloroethylene	ug/l	99
toxaphene	ng/l	0.21
trichloroethylene	ug/l	27
2,4,6-trichlorophenol	ug/l	0.29
vinyl chloride	ug/l	36

6. General Standards

- a. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Clean Water Act and regulations adopted thereunder.
- b. The discharge must be essentially free of:
 - i. Material that is floatable or will become floatable upon discharge.
 - ii. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
 - iii. Substances which will accumulate to toxic levels in marine waters, sediments, or biota.
 - iv. Substances that significantly decrease natural light to benthic communities and other marine life.
 - v. Materials that result in aesthetically undesirable discoloration of the ocean surface.
- c. Waste shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.
- d. The discharge shall be such that, in the view of oceanographic characteristics and current patterns:

- i Pathogenic organism and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports.
 - ii Natural water quality conditions are not altered in areas designated as being of special biological significance.
 - iii Maximum protection is provided to the marine environment.
 - iv The discharge does not adversely affect recreational beneficial uses such as surfing and beach walking.
- e. The discharge shall not interfere with the attainment or maintenance of that water quality which ensures the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife and allows recreational activities in and on the water.

D. SOLIDS DISPOSAL

1. This Permit does not authorize waste discharge to land except for the discharge of domestic wastes to an on-site sewage disposal system, which meets the limitations contained in the Regional Water Board's Basin Plan. Collected screenings, sludges, and other solids (including residual solids that collect in storage tanks etc.) shall be disposed of at a legal solid waste disposal facility. Solid waste disposal sites used in California shall be regulated by waste discharge requirements prescribed by a Regional Water Quality Control Board.

E. PROVISIONS

1. Duty to Comply

The permittee must comply with all of the conditions of this Permit. Any Permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or denial of a Permit renewal application. [40 CFR 122.41(a)]

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

2. Duty to Reapply

This Permit expires on August 25, 2005. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee must apply for and obtain a new Permit. The application, including a report of waste discharge in accordance with Title 23, California Code of Regulations, must be received by the Regional Water Board no later than February 25, 2005. [40 CFR 122.41(b)]

The Regional Administrator of the U.S. EPA may grant permission to submit an application at a later date prior to the Permit expiration date; and the Regional Administrator of the U.S. EPA may grant permission to submit the information required by paragraphs (g)(7), (9), and (10) of 40 CFR 122.21 after the Permit expiration date. [40 CFR 122.21(d)(2)]

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [40 CFR 122.41(c)]

4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment. [40 CFR 122.41(d)]

5. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with this Permit. Proper operation and maintenance includes adequate laboratory control and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a permittee only when necessary to achieve compliance with the conditions of this Permit. [40 CFR 122.41(e)]

6. Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this Permit; or

- b. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
- d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by Permit modification or termination.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified. [40 CFR 122.44(b)]

The filing of a request by the permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any Permit condition. [40 CFR 122.41(f)]

7. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. [40 CFR 122.41(g)]

8. Duty to Provide Information

The permittee shall furnish the Regional Water Board, State Water Board, or U.S. EPA, within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The permittee shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by this Permit. [40 CFR 122.41(h)]

The permittee shall conduct analysis on any sample provided by U.S. EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to U.S. EPA's DMQA manager.

9. Inspection and Entry

The permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or other authorized representatives upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any locations. [40 CFR 122.41(i)]

10. Signatory Requirements

- a. All Permit applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA, shall be signed by a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- b. Any person signing a document under paragraph (a) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR 122.22(d)]

11. Reporting Requirements

- a. Planned changes: The permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the Permit, nor the notification requirements under Provision 11 (g).
- b. Anticipated noncompliance: The permittee will give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements.
- c. Transfers: This Permit is not transferable except in compliance with 40 CFR 122.61(b).
- d. Definitions: The following definitions shall apply unless specified in this Permit;
 - i. "Daily discharge" means the discharge of a pollutant measured during a calendar day of any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily

discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" shall be the concentrations of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.

- ii. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
 - iii. "Daily Maximum" discharge limitation means that highest allowable "daily discharge" during the calendar month.
- e. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self monitoring program. By February 28 of each year, the permittee shall submit an annual report to the Regional Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the permittee shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Permit. If the permittee monitors any pollutant more frequently than required by this Permit, using test procedures approved under 40 CFR Part 136 or as specified in this Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- f. Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date.
- g. Noncompliance reporting: The permittee shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

The following events shall be reported orally as soon as the permittee becomes aware of the circumstances, and the written report shall be provided within five days of that time.

- i. Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in the Permit.
- ii. Any upset that exceeds any effluent limitation in the Permit.
- iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Water Board in this Permit.
- iv. Any noncompliance that may endanger health or the environment.

The Executive Officer may waive the above required written report.

- h. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in a Permit application, or submitted incorrect information in a Permit application or in any report to the Regional Water Board, the permittee shall promptly submit such facts or information.
[40 CFR 122.41(1)]

12. Bypass

The bypass provisions of 40 CFR 122.41(m) apply.

For an unanticipated overflow or bypass, the permittee shall notify the Regional Water Board of each such overflow or bypass, in accordance with procedures outlined in paragraph G.4 of the General Reporting Requirements.

The written confirmation shall include information relative to the location; estimated volume; pH, BOD, and TSS values; date and time; duration; cause; and remedial measures taken to effect cleanup and /or to prevent recurrence. Immediate measures shall be initiated to clean up wastes due to any such overflow or bypass and to abate the effects thereof or, in the case of threatened pollution or nuisance, to take other necessary remedial action.

Bypass of the condensate steam stripper is not subject to the above reporting requirements provided that: 1) the bypass does not cause effluent limitations to be exceeded, 2) the bypass is necessary to perform essential maintenance to ensure efficient operation, and 3) the total time of bypass divided by the total process operating time in a semi-annual reporting period does not exceed 10% [40 CFR 63.4446(g)]. Both anticipated and unanticipated bypasses of the steam stripper are subject to the reporting requirements in Section E.11.g. of this permit.

13. Upset

The upset provisions of 40 CFR 122.41(n) apply.

14. Enforcement

The Clean Water Act provides that any person who violates a Permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of violation. Any person who negligently violates Permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment of not more than one year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided under the Clean Water Act.

15. Existing Manufacturing, Commercial, Mining, and Silvicultural permittees

All existing manufacturing, commercial, mining, and silvicultural permittees must notify the Regional Water Board as soon as they know or have reason to believe that any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Permit, if that discharge will exceed one hundred micrograms per liter (100 ug/l).
[40 CFR 122.42(a)(2)]

16. Availability

A copy of this Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

17. Change in Discharge

In the event of a material change in the character, location, or volume of a discharge, (including any point or non point discharge to land or groundwater) the permittee shall file with this Regional Water Board a new report of waste discharge at least 180 days before making any such change. [CWC Section 13376]. A material change includes, but is not limited to, the following:

- a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
- b. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

- c. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems.
- d. Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

18. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

19. Monitoring

The Regional Water Board or State Water Board may require the permittee to establish and maintain records, make reports, install, use, and maintain monitoring equipment or methods (including where appropriate, biological monitoring methods), sample effluent as prescribed, and provide other information as may be reasonably required. [CWC Section 13267 and 13383].

The permittee must comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2000-60 and any modifications to these documents as specified by the Executive Officer of the Regional Water Board. Such documents are attached to this Permit and incorporated herein. The permittee shall file with the Regional Water Board technical reports on self monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.

Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the permittee, analyses performed by a non-certified laboratory will be accepted provided a quality assurance/quality control program is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for inspection by staff of the Regional Water Board. The quality assurance/quality control program must conform to U.S. EPA or State Department of Health Services guidelines.

20. Toxicity Reduction Evaluations

The permittee shall conduct a toxicity reduction evaluation (TRE) if the discharge consistently exceeds an acute or chronic toxicity effluent limitation. Once the source of toxicity is identified, the permittee shall take all reasonable steps necessary to reduce toxicity to the required level.

21. Best Management Practices

The permittee shall continue implementation of the Best Management Practices Plan (BMPP) for the prevention of spills and other releases of cooking liquors, spent liquors, and process chemicals. The existing plan shall be reviewed for compliance with 40 CFR 430.03. The purpose of the plan is to identify potential areas of spills and releases. Specific emphasis shall be placed on mill startups and shutdowns, and chemical transfers from barges and trucks.

F. GENERAL MONITORING REQUIREMENTS:

1. Influent, effluent, and receiving water monitoring must be conducted according to the current test procedures approved by U.S. EPA under 40 CFR 136, entitled "Guidelines Establishing Test Procedures for the analysis of Pollutants", unless other test procedures have been specified in this order. Other U.S. EPA guidelines for chemical analyses are found in "Methods for Chemical Analysis of Water and Wastes" (EPA-600/4-79-020; revised March 1983), and "Methods for Organic Chemical analysis of Municipal and Industrial Wastewater" (U.S. EPA-600/4-82-057; July 1982). The following guidance documents prepared for U.S. EPA should be utilized where appropriate: "Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs; Guidance on Field and Laboratory Methods (Tetra Tech, Inc., 1986); Analytical Methods for U.S. EPA Priority Pollutants and 301(h) Pesticides in Estuarine and Marine Sediments (Tetra Tech, Inc. 1986), and Bioaccumulation Monitoring Guidance; Analytical Methods for U.S. EPA Priority Pollutants and 301(h) Pesticides in Tissues from Estuarine and Marine Organisms (Tetra Tech, Inc., 1986).
2. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. An annual report shall be submitted by January 30th of each year which summarizes the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent of the samples or at least one sample per month whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by U.S. EPA, the discharger shall participate in the NPDES discharge monitoring report QA performance study. The discharger must have a success rate equal to or greater than 80 percent.
3. Water quality analyses performed in order to monitor compliance with this order shall be by a laboratory certified by the State Department of Health Services for

the constituent(s) being analyzed. If the laboratory used or proposed for use by the discharger is not certified by the California Department of Health Services or where appropriate, the Department of Fish and Game, due to restrictions in the State's laboratory certification, or in cases where certification does not exist for other reasons, the discharge shall be considered in compliance with this provision provided:

- a. Data results remain consistent with result of samples analyzed by the Regional Water Board and U.S. EPA;
 - b. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by staff of the Regional Water Board and U.S. EPA;
 - c. Certification is pursued in good faith and obtained as soon as possible if and when it becomes available; and
 - d. A waiver is issued by the Regional Water Board's Executive Officer.
4. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Effluent samples shall be taken downstream of the last addition of waste to "manhole 5" where a representative sample may be obtained prior to discharge to the outfall line, and at upstream locations when appropriate.

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurement;
 - b. The name of the individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed
 - d. The individual(s) who performed the analyses
 - e. The analytical technique(s) or method(s) used; and
 - f. The results of such analyses
5. The six-month median effluent concentration limit shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted concentration within a 24-hour period.
6. The daily maximum effluent concentration limit shall apply to flow weighted 24-hour composite samples.
7. The instantaneous maximum shall apply to grab sample determinations.

8. If only one sample is collected during the time period associated with the water quality objective (e.g. 30-day average or six-month median) the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.
9. The results of any monitoring which is conducted, using approved test procedures and at locations specified in this order, more frequently than required by this order shall be included in calculations and reports.
10. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their accuracy. The flow measurement system shall be calibrated at least once per year, or more frequently as necessary, to ensure continued accuracy of the system.
11. The discharger shall maintain records of all monitoring information, including all calibration and maintenance records; all original strip chart recordings for continuous monitoring instrumentation; the date, exact place, and time of sampling or measurements; the individual(s) who performed the sampling or measurements; the date(s) the analyses were performed; the laboratory(s) and individual(s) who performed the analyses; the analytical technique(s) or method(s) used; and the results of all analyses. Records shall be maintained for minimum of 5 years. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board or U.S. EPA Region 9.
12. Surf zone monitoring shall be conducted in response to notification by U.S. EPA or the Regional Water Board if complaints from recreational users indicate that recreational beneficial uses are being adversely impacted.

G. GENERAL REPORTING REQUIREMENTS:

1. Monitoring results shall be collected and reported at intervals and in a manner specified in Monitoring and Reporting Program No. R1-2000-60.
2. Monitoring reports shall be submitted to the Regional Water Board according to the following schedule:

Monitoring Frequency

Report Due

Continuous, Daily, Weekly,
Monthly, Quarterly, Semiannually

By the 15th day of the following month

Annually

By February 28 of each year

3. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of Monitoring and Reporting Program No. R1-2000-60 shall include, as minimum, the following information:
 - a. A description of climatic and receiving water characteristics at the time of sampling including weather observations, a description of any floating debris and discoloration, wind speed and direction, swell or wave action, time of sampling, tidal stage and any other observations that describe conditions during the sampling event.
 - b. The date, exact place and description of sampling stations, including differences unique to each station such as station location, sediment grain size, distribution of bottom sediments, rocks, shell litter, calcareous tubes etc.
 - c. The names of the individuals who performed the sampling and/or measurements.
 - d. A description of the sample collection and preservation methods used in the survey.
 - e. A description of the specific methods used for laboratory analysis. In general analyses shall be conducted according to paragraph F-1. of the General Monitoring Requirements. Variations in procedure may be acceptable to accommodate special requirements of sediment analysis. All such variations must be reported with the test results.
 - f. The date(s) the analyses were performed and the names of the individuals performing the work.
 - g. An in-depth discussion of the results of the survey. The discussion shall compare data from the reference station(s) with data from the outfall stations. All tabulations and computations shall be explained.
4. Any noncompliance that may endanger health of the environment shall be reported verbally immediately, and in no case later than 24 hours from the time the discharger becomes aware of the noncompliance, to the Regional Water Board.

Unless waived by the Regional Water Board and U.S. EPA Region 9, a written report shall be submitted to the Regional Water Board and U.S. EPA Region 9 within 5 days of the awareness of any noncompliance and shall contain a description of the noncompliance and its cause; the period of any noncompliance

(including exact date and times); and steps taken or planned to reduce, eliminate, and prevent a recurrence of the event that caused the noncompliance.

5. All reports of noncompliance shall also be included in the monthly monitoring report and summarized in the annual report.
6. The discharger shall submit to the Regional Water Board and U.S. EPA Region 9 by February 28 of each year, a summary of the quantities of all chemicals, listed by both trade name and chemical name, which are used for cooling and/or boiler water treatment and for raw water treatment and which are discharged to the outfall. A copy of the appropriate MSDS Sheets shall be included.
7. The discharger shall submit all reports required by this order to:

Executive Officer
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

and

U.S. Environmental Protection Agency, Region 9
Attn: WTR-7, NPDES/DMR
75 Hawthorne Street
San Francisco, CA 94105

8. Should the discharger discover that it failed to submit any relevant facts or that it submitted incorrect information in a report, it shall promptly submit the missing or correct information.
9. All reports shall be signed according to Provision E.10 "Signatory Requirements".
10. By February 28th of each year, the discharger shall submit an annual report to the Regional Water Board and U.S. EPA Region 9. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The discharger shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge in full compliance with this order.

H. COMPLIANCE DETERMINATION:

1. All analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples.

Compliance based on a single sample analysis should be determined where appropriate as described below.

- a. When a calculated effluent limitation is greater or equal to the "PQL", compliance shall be determined based on the calculated effluent limitation and either single or multiple sample analyses.
 - b. When the calculated effluent limitation is below the "PQL", compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the "PQL".
 - c. When the calculated effluent limitation is below the "PQL" and recurrent analytical responses between the "PQL" and the calculated limit occur, compliance shall be determined by statistical analysis of multiple samples. Sufficient sampling and analysis shall be required to determine compliance.
2. Published values for "MDL" and "PQL" should be used except where revised "MDLs" and "PQLs" are available from recent laboratory performance evaluations, in which case the revised "MDLs" and "PQLs" should be used. Where published values are not available the Regional Water Board will determine appropriate values based on available information.
 3. If the discharger believes the sample matrix under consideration in the waste discharge requirement is sufficiently different from that used for an established "MDL" value, the discharger may demonstrate to the satisfaction of the Regional Water Board what the appropriate "MDL" should be for the discharger's matrix. In this case the "PQL" shall be established at the limit of quantitation (equal to 10 standard deviations above the average measured blank used for development of the "MDL" in the discharger's matrix)
 4. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the "MDL" for that parameter.

I. DEFINITIONS:

1. **BYPASS** means any intentional diversion of waste streams from any portions of a treatment facility.
2. **CHLORDANE** shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor- alpha, nonachlor-gamma, and oxychlordane.

3. **COMPOSITE SAMPLE** means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter.

COMPOSITE SAMPLE means, for other than flow rate measurement,

- a. A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

OR

- b. A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall be 24 hours if no period is specified.

4. **CHRONIC TOXICITY** is used to measure the acceptability of waters to support a healthy marine biota until improved methods are developed to evaluate biological response.

Chronic Toxicity (TU_c)

Expressed as Toxic Units Chronic (TU_c)

$$\text{TU}_c = 100/\text{NOEL}$$

NOEL is the **No Observed Effect Level** and is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test.

In determining compliance, the 15% Effective Concentration (EC15%) or the 15% Inhibition Concentration (IC15%), which estimates the effluent concentration that causes a measurable effect on 15% of the test organisms, is deemed equivalent to the NOEL.

5. **DAILY DISCHARGE** means:

- a. For flow rate measurement, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
- b. For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonable representative of the calendar day for purposes of sampling.

6. **DAILY MAXIMUM** limit means the maximum acceptable daily discharge. For pollutant measurements, unless otherwise specified, the results to be compared to the daily maximum limit are normally based on composite samples.
7. **DDT** shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD and 2,3'DDD.
8. **DEGRADE** means to impair. Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are no longer affected, or are not the only ones affected.
9. **DICHLOROBENZENES** shall mean the sum of 1,2- and 1,3-dichlorobenzene.
10. **ENDOSULFAN** shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
11. **GRAB SAMPLE** is defined as any individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with daily maximum limits and instantaneous maximum limits.
12. **HALOMETHANES** shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichloro-bromomethane.
13. **HEPTACHLOR** shall mean the sum of heptachlor and heptachlor epoxide.
14. **HAZARDOUS SUBSTANCE** means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
15. **HCH** shall mean the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
16. **INITIAL DILUTION** is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

17. **INSTANTANEOUS MAXIMUM** concentration is defined as the maximum value measured from any single grab sample.
18. **MDL** (Method Detection Limit) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyzed concentration is greater than zero, as defined in 40 CFR 136 Appendix B.
19. **MAINTENANCE-RELATED WASTEWATER** is the wastewater generated during maintenance activities during pulp production, scheduled maintenance shutdowns, and unscheduled shutdowns including, but not limited to, digester cleaning, tank cleaning, and boiler washing. Maintenance-related wastewater does not include unused feedstock chemicals or other raw materials normally used in mill operations.
20. **PROCESS WASTEWATER** is any water which during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product. Process wastewater does not include waste fluids generated during maintenance activities or treatment of raw water and does not include blowdown from the recovery boiler or stormwater.
21. **NATURAL LIGHT** reduction may be determined by the Regional Water Board by measurement of light transmissivity, or total irradiance, or both, according to the monitoring needs of the Regional Water Board.
22. **OCEAN WATERS** are the territorial marine waters of the State as defined by California law to the extent these waters are outside enclosed bays, estuaries, and coastal lagoons. If a discharge outside of territorial waters of the State could affect the quality of the State, the discharge may be regulated to assure that no violation of the Ocean Plan will occur.
23. **PAHs** (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,1,2-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
24. **PCBs** (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260
25. **PQL** (Practical Quantitation Level) is the lowest concentration of a substance which can be consistently determined within +/- 20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL for carcinogens is the MDL X 5, and for noncarcinogens is the MDL X 10.

26. **SHELLFISH** are organisms identified by the California Department of Health Services as shell fish for public health purposes (i.e. those that we like to eat, mussels, clams, and oysters).
27. **SIGNIFICANT** difference is defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.
28. **TCDD EQUIVALENTS** shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

<u>Isomer Group</u>	<u>Toxicity Equivalence Factor</u>
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

29. **WASTE** includes a discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

CERTIFICATION

I, Lee A. Michlin, Executive Officer,
do hereby certify that the foregoing is
a full, true, and correct copy of an Order
adopted by the California Regional Water
Quality Control Board, North Coast Region,

on August 25, 2000.

Lee A. Michlin
Executive Officer

(lp2000)